

1-5 Solve each equation by hand.

6-10 Solve each equation using a calculator. Round your answers to three decimal places if necessary.

1. $\log_5(3x + 2) = \log_5(6 - x)$

6. $\log_{10} 8x - \log_{10}(1 + \sqrt{x}) = 2$

2. $\ln(x + 5) = \ln(x - 1) - \ln(x + 1)$

7. $\ln(x - 3) + \ln(x + 3) = 1$

3. $\log_3 x + \log_3(x - 8) = 2$

8. $\log 4x - \log(12 + \sqrt{x}) = 2$

4. $\ln(x + 1) - \ln(x - 2) = \ln x$

9. $\ln x + \ln(x + 1) = 2$

5. $\log_4 x - \log_4(x - 1) = \frac{1}{2}$

10. $\ln x + \ln(x^2 + 4) = 10$

11. *Find the amount accumulated after investing \$122,600 for 6 years at an interest rate of 3.5% compounded continuously.

12. *Solve for x. $\left(\frac{2}{3}\right)^x = \frac{81}{16}$

13. *Solve for x. $3^{x-1} = \frac{1}{81}$

14. *Graph. $f(x) = -\ln\frac{1}{2}x - 2$

Parent function _____

x	y

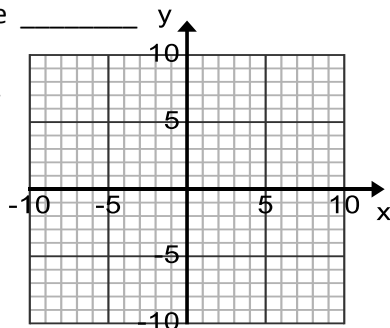
Description of
transformation

x	y

y-int _____ asymptote _____

Domain _____

Range _____



15. *Graph. $f(x) = -e^{x-2} + 3$

Parent function _____

x	y

Description of
transformation

x	y

y-int _____ asymptote _____

Domain _____

Range _____

